

## NYSRC Forward Looking IRM Issues Paper

### **CALCULATION OF FUTURE IRMS FOR AN ANTICIPATED NYISO FORWARD LOOKING CAPACITY MARKET**

#### 1. Background

The NYISO is considering implementation of a Forward Looking Capacity Market (FCM) for New York. Details of such a FCM, as of now, have not been defined. Eventual FERC approval will be required. If such a market is approved, its implementation will require projections of near term IRM requirements. The NYISO has notified the NYSRC that it may be requested to prepare these future IRMs. Determination of such FCM IRMs by the NYSRC would be in addition to NYSRC's present role of preparing IRMs for the next capability period. Although much is unknown at this point about how such a market would work or when it will be initiated, and because NYSRC studies would require new procedures, models, and additional NYISO and NYSRC time commitments, it is prudent that the NYSRC start planning now for this task. There are many questions related to these issues that should be resolved before undertaking a FCM IRM study.

This paper makes the assumption that the NYISO will initially require FCM IRMs as early as mid-2009, and that the horizon year for the study will be three to five years into the future, i.e., 2011-2013. This paper addresses FCM IRM study issues and lays out a "strawman" study scope that we expect will be modified as details of the NYISO FCM emerge.

#### 2. FCM IRM Study Issues

- *NYSRC and NYSRC/NYISO Agreements* – These Agreements state that the NYSRC will determine state-wide installed capacity requirements. Do these Agreements, as presently stated, provide for preparation by the NYSRC of FCM IRMs? Paul Gioia should review this question.
- *NYSRC Policy 5* – Policy 5 now provides NYSRC procedures and models for calculating the IRM for only the next capability period. Policy 5 will have to be expanded to allow for determination of FCM IRMs as well. ICS should review the types of changes that must be incorporated into Policy 5.
- *Manpower Requirements* – The strawman study scope below assumes that NYISO staff will conduct the necessary MARS studies for the FCM IRM analyses. However, the NYISO should examine its resources to ensure that it can meet this commitment. Otherwise, an outside resource, such as GE, must be retained to conduct the necessary MARS studies.

It should also be recognized that an FCM IRM study would put an additional burden on ICS as well. During the time period that the strawman scope

contemplates the study is to be conducted (January – April 2009), ICS is normally preparing assumptions and models for its next IRM study. ICS should review scheduling requirements for the FCM study.

We recommend that the above issues be resolved by June 2007.

### 3. Strawman FCM IRM Study Scope

- Purpose of Study

To determine NYCA IRM requirements for an horizon year 3 to 5 years into the future, i.e., 2011 to 2013. This information will be provided to the NYISO for requirements associated for its anticipated forward capacity market.

- Scenarios

Because of the great uncertainty of the future impacts on IRM requirements of environmental initiatives, wind resource penetration and load levels, three IRM scenarios will be examined: a base case, a high range IRM case, and a low range IRM case. Realistic assumptions will be utilized for all scenarios.

- Primary References

- a) NYISO 2008 or latest Reliability Needs Assessment (RNA)
- b) NYISO 2008 Gold Book
- c) NYSRC 2009 IRM Study

- Data Bases Common for All Three IRM Scenarios

The study will start with the 2009 IRM Study base case assumptions. Certain of these assumptions, as required, will be modified for the three year 2013 IRM scenarios. Common modifications for all three scenarios will include retirements and new units from the RNA and 2008 Gold Book, additional capacity that will be required for meeting the LOLE criterion as identified in the RNA, and transfer limits from the RNA. The table below shows those data base parameters will be varied for the three scenarios. Outside world modeling will be consistent with RNA study assumptions.

- Scenario Data Bases

The above common data base will be supplemented as follows:

<b>Parameter</b>	<b>Base Case</b>	<b>Low Range IRM Case</b>	<b>High Range IRM Case</b>
Load Forecast	RNA or 2008 Gold Book	“15x15” Energy Efficiency Scenario (RNA)	RNA or 2008 Gold Book
Environmental Initiatives	<u>HEDD</u> – as used in the RNA’s HEDD Scenario <u>RGGI</u> – as used in the RNA’s RGGI Scenario	<u>HEDD</u> – Factors identified in RNA that could improve compliance efforts and reduce IRM from the base case. <u>RGGI</u> – same as base case	<u>HEDD</u> – Factors identified in RNA that could aggravate compliance efforts and increase IRM from the base case. <u>RGGI</u> – same as base case, NYS Bill 7434 legislation proposed to limit SCR & EDRP diesel combustion generation facilities
Wind Resources	Base case MW value	Low range MW value	High range MW value

- Study Methodology

Unified and TAN 45 methodologies, consistent with 2009 IRM Study.

- Sensitivity Cases

It may be useful, depending on study results and man-power constraints, to conduct sensitivity studies for one or more IRM scenarios.

- Study Schedule

The study will begin January 2009, immediately following completion the 2009 IRM Study, and will be completed April 2009. Preliminary study work, including preparation of the data base, could begin in late Fall 2008 if details of the FCM are defined by then.

- Study Management

The study will be managed by ICS, with the NYISO or another entity conducting the required MARS runs.